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## **Accelerated Protocol** **Minimally Invasive Achilles Repair Rehab**

### **First 2 Weeks After Surgery (Follow-up at 1 week and 2 weeks after surgery with Dr. Nwachukwu)**

#### **Goals**

- Protection of repair
- Reduction of swelling to allow for soft tissue healing

#### **Weight bearing**

- Non-weight bearing with crutches and/or scooter

#### **Brace**

- Splint in plantarflexion
- **Follow-up 1 week after surgery and change to cast with ankle in plantarflexion for another week--this means 2 weeks total of no weight on your leg**

#### **Exercises**

- ELEVATE, ELEVATE, ELEVATE!

### **Weeks 2-4 (Follow-up at 4 weeks after surgery with Dr. Nwachukwu) Goals**

- Initiate formal physical therapy (2 times per week)
- Begin graduated weight bearing
- Active dorsiflexion up to neutral

#### **Weight bearing**

- Initiate PWB in boot with 2 crutches then go down to 1 crutch and finally no crutches in the boot

#### **Brace**

- Tall CAM boot with FOUR ½” heel wedges. Remove 1 wedge every 5-7 days as able. Should be no wedges by Week 6 follow-up

#### **Treatment**

- Gentle scar massage and cryotherapy

#### **Exercises**

- Active dorsiflexion to neutral only
- No active plantar flexion
- Pain-free ankle isometrics: inversion, eversion, dorsiflexion and sub-max plantar flexion
- Open-chain hip and core strengthening in boot

### **Week 4 – 6 (Follow-up at 6 weeks after surgery with Dr. Nwachukwu)**

## Goals

- Regain ankle ROM (active ROM between 5° DF and 40° PF)
- May sleep out of boot if comfortable now

## Weight bearing

- Full

## Brace

- Boot at all times with 1inch heel lift. Can remove for hygiene and exercises

## Precautions

- Avoid overstressing the repair (forceful movements in the sagittal plane, forceful plantar flexion while in a dorsiflexed position, aggressive PROM)

## Treatment

- Gentle cross fiber massage to achilles tendon to release adhesion between tendon and peritendon
- Cryotherapy and other modalities add PRN

## Exercises

- Active ankle eversion/inversion
- Passive dorsiflexion both with knee in extension and flexed to 35 - 40° until gentle stretch on achilles
- Begin standing calf stretch at 5 weeks (knee flexed and extended)
- Continue eversion, inversion and plantar flexion isometrics with resistance bands
- Initiate balance exercises (double leg wide base → narrow base)
- Initiate stationary bike with minimal resistance
- Initiate pool exercise in total buoyancy with floatation device if wound is fully healed
- Hip and core strengthening

## 7 – 12 weeks

### Goals

- **Normalize gait on level surface without boot or heel lift**
- **Active ROM between 15° DF and 50° PF**
- **Good control and no pain with functional movements**

### Brace

- Supportive athletic shoes with ankle brace

### Precautions

- Avoid high impact activity

### Exercises

- Full PROM/AROM all planes. Avoid forceful dorsiflexion
- Progress standing calf stretch
- Initiate double leg toe raise and advance weight as tolerated
- Initiate functional movement (squat, steps ups, lunges in all planes)
- Advance balance training to wobble board and single leg activity
- Initiate frontal and transverse plane agility drills (progress from low velocity to high and then gradually add in sagittal plane drills)
- Progress cardiovascular training
  - Stationary bike, stairmaster, swimming, chest level water exercise, treadmill walking

### **3 – 6 months**

#### **Goals**

- **Ankle strengthening**
- **Regain normal gait**
- **Initiate running**

#### **Precautions**

- Normal shoes.

#### **Exercises**

- Progress double leg toe raises to body weight (1.5 times body weight athlete)
- Advance to single leg toe raises as tolerated
- Running progression at 5 months
  - Trampoline jogging → treadmill → outdoor running

### **6 – 9 months**

#### **Goals**

- **Return to sport/job specific training**

#### **Precautions**

- Post-activity soreness should resolve after 24 hours
- Avoid excessive activity related swelling and/or pain

#### **Exercises**

- Progress running to sprinting
- Initiate agility: figure of 8 and cutting drills 6 months
- Jumping progression 6 – 7 months
- Sport/job specific training
- Full return to sport/strenuous work 8 – 9 months